# National Seafood Inspection Laboratory (NSIL)
## RESEARCH REVIEW TEAM DATA REQUEST

1.) Please provide a copy of the most recent evaluation of the lab or center in pdf format.
    a. Was this review internal or external?

The most recent review of the National Seafood Inspection Laboratory (NSIL), aside from security, and operational safety reviews, was conducted by the Canadian Government's Department of Fisheries and Oceans Inspection Program in 1994 as a small element of a wider review of the Department of Commerce's (DOC) Fisheries Inspection Program. The review was an external review of the Laboratory's staffing and standard operating procedures, quality assurance, and annual Plans of Operations (Planops).

The Laboratory was scheduled to be included in the 1996 NOAA/NMFS Science review. However, after presentations by the Headquarter's supervisor of the Laboratory and the NSIL Directors, the Miter contractor review team, elected to omit the Laboratory from the agency wide review, since its mission and seafood science and public health skills mix were so divergent than those found in other NMFS laboratories which were being reviewed.

2.) Please provide a brief history, and mission of your laboratory /center.

**National Seafood Inspection Laboratory (NSIL)**

NSIL has provided scientific over site and analytical support to the DOC National Seafood Inspection Program (NSIP) from 1974 - 1996 as well as representing NOAA Fisheries in various national and international fora that establish policy and standards for seafood safety and product quality. Along with providing analytical and technical support to NSIP, NSIL was instrumental in establishing Hazard Analysis and Critical Control Point (HACCP) concept which is now the mandatory regulatory standard quality control monitoring protocol for all meats and seafood in the U.S. and Europe; and a multitude of seafood safety-related issues through the decades. During the time NSIL was closely associated with the NSIP it involved into one of the largest seafood testing laboratories in the country, providing process/product risk assessments of DOC inspected plants, products, and performance measurement of the Inspection Program itself, as well as providing the scientific credibility for the NSIP. Laboratory staff served on all major national and international product safety and quality public advisory policy development bodies. As a result of these actions, NSIL still serves as a major NOAA Fisheries seafood safety rapid response facility and is oftentimes the first NOAA Fisheries facility contacted when a seafood safety episodical event occurs.

In anticipation of DOC NSIP being transferred to either HHS, FDA, or USDA, NSIL was reassigned to the NOAA Fisheries' Office of Sustainable Fisheries (F/SF) in 1996. The agency recognized and so instructed the General Accounting Office (GAO) that regardless of the fate of the NOAA Fisheries' National Seafood Inspection Program (e.g., privatization, transfer to another agency, etc.) NOAA Fisheries would continue to have a national and international federal role in seafood safety, particularly in the preharvest areas. There continues to be a need to interface with a wide variety of national and international organizations regarding food safety and public health policy development from a fisheries and seafood science perspective.

For example, the presence of harmful substances (e.g., marine toxins, pathogens, nutrient loads, petroleum products and other chemicals) in the marine environment has deleterious effects on the harvest and use of fishery resources and on the biological productivity of fishery stocks. Development and evaluation of new technology are needed for effective assessment and mitigation of these problems. Determination of the origination, fate, and effects of harmful substances in marine species is needed to assess impacts on essential habitats and reduce adverse consequences to populations of fishery stocks. Effective, timely fisheries management actions based on sound, scientific information are necessary to mitigate the economic impact from fishery regulatory or advisory actions (due to public concern for the safety of harvested species). The congressionally earmarked Product Quality and Safety (PQS) annual appropriations have allowed the agency to participate in all major seafood safety fora, as well as engage in aquatic animal health research and activities as previously described. The PQS appropriations provide the ability for NOAA Fisheries to respond effectively to threats posed by harmful substances such as oil spills, toxic algae, marine contamination or other episodical events.

NOAA Fisheries excellent reputation with its clients and the public animal, and environment health communities are based in part, on its long standing interagency working relationships funded by the PQ&S appropriations.

NOAA Fisheries is mandated to support the U.S. Seafood Industry by providing support to address product quality and safety issues. Retaining NSIL within the agency, regardless of the fate of the NSIP, in part fulfills that mandate.

With the pending transfer of the DOC NSIP to either USDA or FDA, NSIL was directed to provide continued support to the F/SF in addition to its broader agency wide PQS related duties. NSIL was capable of assuming these additional responsibilities due to NSIP's reduction of activities while awaiting transfer of the inspection program which resulted in a decreased laboratory analytical workload for NSIL. New duties for NSIL included the assumption of the Large Pelagic Survey; creation and execution of a Swordfish Import Monitoring Program; creation and conducting of a Toothfish Import Monitoring Program; scoping for the creation of a Tournament Monitoring Program; and participation in the NMFS Regulatory Streamlining Project (RSP); and becoming actively involved in the Aquatic Animal Health Task Force of the Joint Subcommittee on Aquaculture to develop an interagency National Aquatic Animal Health Plan for Import/Export Certifications, etc.

In recent years, NSIL has devoted more of its resources within its PQS mission in order to address re-emerging seafood safety resources dealing with marine contamination (e.g., mercury, chlorinated hydrocarbons, etc.), as well as aquatic animal health issues. NSIL is currently transitioning more of its resources back to its original PQS mission as opportunities to transfer some of its F/SF fishery management support duties arise. As a result, the Large Pelagic Survey was transferred to FSF/HMS, and those resources personnel were invested in collaborations with other NOAA elements and state and federal agencies on the contaminants in seafood issue, which has the potential to devastate the U.S. Seafood Industry, Recreational Fishing Industry, and related sectors. Other high profile activities currently being addressed by NSIL include:

1) Assisting FDA to analyze for the illegal use of chloramphenicol in imported shrimp issue, 2) Assisting U.S. Customs to prevent imports of mislabeled catfish in the U.S. market, assisting the U.S. catfish industry to address the "dumping" of Vietnamese catfish in the U.S., and 3) the development of an interagency Federal Policy on mercury in seafood; correcting the misperception that farmed salmon contain more chlorinated hydrocarbons than wild salmon; and assisting the Interstate Shellfish Sanitation Conference (ISSC), a state/federal/industry public health regulatory policy development body, to reduce deaths from Gulf of Mexico (GOM) oysters, from a natural occurring pathogen *Vibrio vulnificus*.

NSIL provides NOAA Fisheries and other federal and state agencies with a broad array of

scientific and technical expertise and analytical capabilities that equip the agency with the rapid response capabilities it needs to serve its constituencies in regards to seafood science responsibilities, and its PQS mandates. While NSIL has ramped up its analytical work related to contaminants in seafood, its capacity to absorb additional work has become limited. Therefore, NSIL is currently in the process of entering into interagency agreements to procure additional staff to assist in accomplishing high priority projects.

3). Please provide a listing of major customers of the laboratory /center, with a one sentence description of what is being done for them.

U.S. Seafood Consumers: Providing analytical, technical support, and seafood science expertise to resolve international and domestic issues which involve seafood PQS issues.

U.S. Seafood Industry and Numerous Trade Associations: Providing analytical and technical support and seafood scientific expertise for resolving international and domestic issues involving PQS.

U.S. Government: Provide representation to the Codex Alimentarius during international food safety standards negotiations, the adherence to which provide for a legal "safe harbor" in WTO trade disputes.

DOC NOAA Fisheries Enforcement: Provide analyses to support cases and monitoring activities involving economic fraud and the violation of various fishery laws and regulations.

DHS/Customs: Provide analyses and support for cases and monitoring activities involving import violations and homeland security threats.

DOJ: Provide analytical, forensic support, and seafood scientific expertise for prosecutorial cases and monitoring activities involving import violations.

HHS/FDA: Provide analyses and support for cases and monitoring involving, adulteration of products and mislabeling of species and other seafood science expertise, as well as serving for FDA as a surge overload analytical facility due to homeland security threats.

DOC NOAA Fisheries: Provide representation to ISSC to address and develop public health regulatory policy and conformance assessment procedures for molluscan shellfish food safety requirements.

EOP/OSTP NOAA Fisheries: Provide representation on the Interagency Working Group on Methylmercury.

EOP/OSTP NOAA Fisheries: Provided technical and editorial guidance for the "Recommendations for Federal Research on Mercury in the Gulf of Mexico Region."

DOC NOAA Fisheries: Provide representation on Federal-State Interagency Mercury Round Table to address global implications and human and aquatic animal health impacts from natural and anthropogenic mercury releases into the environment.

DOC NOAA Fisheries and EPA Gulf of Mexico Program (GOMP): Conducting synoptic survey of mercury in recreational finfish of the GOMP to determine if an unrecognized subpopulations (commercial and recreational fishermen, including their families and friends) are at risk.

DOC NOAA Fisheries: Provide representation on EPA GOMP Public Health Forum.

DOC NOAA Fisheries NSIP: Provide analyses of seafood regarding microbiological standards, Hazard Analysis and Critical Control Point (HACCP) surveillance, and investigative cases to determine economic fraud through species substitution.

DOC NOAA Fisheries: Provide swordfish import monitoring for the U.S. to fulfill U.S. obligations to International Convention for the Conservation of Atlantic Tunas.

DOC NOAA Fisheries: Provide U.S. Representation to Commission for Conservation of Living Antarctic Marine Living Resources (CCALMR).

DOC NOAA Fisheries: Provide toothfish import monitoring for the U.S. to fulfill U.S.

obligations, and in the case of toothfish, development of a "paperless" Catch Documentation System which was pilot tested successfully by CCALMR and is being recommended for adoption by that regional fishery management organization. The paperless system greatly reduces the opportunity to fraudulently market IUU toothfish in world markets.

U.S. Fish Meal Industry: Conduct microbiological analyses needed to provide certification of quality and safety required for exporting fish.

DOC NOAA Fisheries: Provide, from a seafood science perspective, representation to the interagency (USDA, FDA, NOAA, DOD) National Advisory Committee on Microbiological Criteria for Foods (NACMCF), a FACA committee on microbiological standards and other food safety issues.

DOC NOAA Fisheries: Provide representation to the interagency Joint Subcommittee on Aquaculture Aquatic Animal Health Task Force.

DOC NOAA Fisheries: Provide representation to the EPA Interagency GOMP.

4.) Please provide a summary of research being conducted (Your list of major requirements from the Program Baseline Assessments (PBA) maybe helpful in answering this question.)

4a. For each research theme identified above, include a brief explanation of how this research relates to NOAA program areas. (The program areas are those identified in the recent Program Baseline Assessment.)

**Fishery Management Program - Economic Sustainability**

NSIL is a multifaceted laboratory with the analytical capability of dealing with marine forensics, chemical contaminants and toxins, pathogenic microbiology and virology, and determinations of fraudulent practices. The Laboratory provides scientific oversight to support the NMFS Seafood Inspection Program. NSIL supports law enforcement, public health agencies, and private entities (e.g., Homeland Security, CDC, EPA, NOAA, NMFS, U.S. Customs, U.S. Justice, FDA, States, Wholesale and Retail Seafood Buyers,

Consumer Groups, etc.)

**Regulatory Analysis - Evaluation and Implementation**

NSIL manages the Import Monitoring Programs for Swordfish and Toothfish which meets NMFS' international obligations to ICCAT and CCALMR. NSIL also has a leadership role for NMFS' Regulatory Streamlining Project (RSP) Operational Guidelines development, QC/QA and training.

4b. Provide the geographic scope of your research - regional, national, global.

NSIL's geographic scope is national and international.

4c Provide the time frames of your research - short term, (0-2 years), medium term, (2-5 years), long term (greater than 5 years).

NSIL does not conduct research per se. NSIL conducts product/process risk assessments, compliance analyses and monitoring, related to seafood safety, quality, law enforcement, etc. NSIL is a rapid response laboratory that handles episodic seafood safety and aquatic animal health related issues and long-term seafood safety and aquatic animal health related issues. The facility also operates an import control program for swordfish and toothfish.

5.) Please provide a listing of 3-5 major accomplishments in the last five years.

Provision of sound scientific information for use in multiple interagency and international discussions/working groups/ task forces involving seafood public health policy development and conformance assessment procedures (e.g., NSIL is instrumental in establishing Federal Research Policy on methylmercury in fish).

NSIL created import monitoring programs for toothfish and swordfish in order to meet ICATT and CCAMLR Regional Fishery Management Organizations Conservation Measures.

NSIL has provided support to the U.S. Seafood Industry in resolving of seafood safety and PQS issues for impeding imports and exports (e.g., fish meal ban by Japan of large U.S. fish meal producers, exporting fish eggs to Chili, etc.).

NSIL was instrumental in correcting a flawed FDA proposed industry wide regulatory performance standard to reduce the deaths resulting from GOM oysters and was successful in persuading the Gulf industry and FDA to accept the revised standard.

NSIL improved the Large Pelagic Survey which saved the agency $400K per year as well as improving the Contractor Statement of Work and monitoring of the contract.

NSIL designed and is conducting a "Synoptic Survey of Total Mercury in Recreational Finfish of the Gulf of Mexico" to determine if commercial and recreational fishermen who consume more than 15 pounds per year (the exposure level for which the original mercury in fish risk assessment was premised upon) are at risk from mercury contamination.

6.) Please provide a summary of legal mandates for the work in the laboratory/center.

Agricultural Marketing Act
American Fisheries Promotion Act
Antarctic Marine Living Marine Resources Act
Aquaculture Development Act
Atlantic Tuna Convention Act
Commerce, Justice, State Appropriations Act
Economy Act
E.O. 13100, White House Interagency Working Group on Mercury
Fish and Seafood Promotion Act
Fish and Wildlife Act
Fish and Wildlife Improvement Act
International Convention for Conservation Atlantic Tunas
Magnuson-Stevens Act
Marine Resources and Engineering Development Act
1970 Reorganization Plan

1990 EOP Reorganization Plan
NOAA Marine Fisheries Program Authorization Act
Public Health Security and Bioterrorism Act
Saltonstall-Kennedy Act
Trade Agreements Act
Uruguay Round Agreements Act

7.) Attached in Excel format is the compilation of financial and staffing data that your laboratory or line office provided. Please verify that data are correct.

The spreadsheet is inaccurate. There are 20 FTEs instead of the 16 indicated.

In your response please identify a contact person and a telephone number, in case clarifying information is needed.

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Note–We will be sending out a separate, but similar data request to the Joint and Cooperative Institutes.